

BEFORE TAUPŌ DISTRICT COUNCIL

IN THE MATTER OF the Resource Management Act 1991 ('the Act')

AND

IN THE MATTER OF of an application for a Proposed Plan Change 37 Nukuhau
North Residential Area

**EVIDENCE OF WILLIAM BRUCE SHAW ON BEHALF OF
TAUPŌ DISTRICT COUNCIL**

Date: 6 October 2021

QUALIFICATIONS AND EXPERIENCE

- 1 I am Lead Principal Ecologist and a Director of Wildland Consultants Ltd, and have been a practicing ecologist for more than 40 years. I have worked on many projects in Taupō District. A longer overview of my qualifications and relevant experience is provided in Appendix 1.

CODE OF CONDUCT

- 2 I have read the Code of Conduct for Expert Witnesses outlined in the Environment Court's Consolidated Practice Note and have complied with it in preparing this evidence. I also agree to follow the Code when presenting evidence. I confirm that the issues addressed in this brief of evidence are within my area of expertise and that I have not omitted to consider material facts known to me that might alter or detract from my opinions.

SCOPE OF EVIDENCE

- 3 I have been engaged to provide a statement of evidence by Taupō District Council. My evidence forms part of the District Council Section 42A Evaluation of the proposed Private Plan Change.
- 4 In my evidence I address the following issues:
 - Background.
 - Previous involvement in the Nukuhau area.
 - Statutory context.
 - Technical review undertaken in 2021.
 - Ecological significance of vegetation and habitats.
 - Comments on submissions.
- 5 This is followed by discussion of ecological issues and my conclusions.

BACKGROUND

- 6 Taupō District Council is processing a private plan change request from three landowners at Nukuhau, on the northern margins of Taupō township. The Council, has notified the Plan Change and received submissions and is preparing for the subsequent hearing.

- 7 The plan change request seeks to change the zoning of 77.78 hectares of Rural Environment zoned land to a mix of General Residential and Medium Density Residential. It also seeks to provide a Neighbourhood Shopping Centre overlay over an area in the proposed General Residential Zone and areas of stormwater and recreation reserves. These proposed zone changes will enable the future development of approximately 780 dwellings in an area identified in the Taupō District 2050 - Growth Management Strategy (TD 2050) as a northern growth area.
- 8 The site has an irregular shape and split into two parts, a rectangular piece of land to the east of Poihipi Road (eastern site area) and a larger tract of land to the west (western site area), as illustrated in Figure 2-2 in the application. The site is in an elevated position between 410 metres and 450 metres above sea level and overlooks Lake Taupō which is c.1.3 kilometres to the south and the CBD is c.1.5 kilometres to the southeast.
- 9 The land contains a mixture of uses including lifestyle blocks and rural farmland. Most of the sites are used for animal grazing. Paddocks are defined by post and wire fences, hedges and mature shelterbelts. The western part of the site includes a small number of rural-residential lifestyle properties. A disused homestead is set amongst a large stand of mature native and exotic trees within the eastern portion of the site on its southern boundary. The site is flat to gently rolling with a moderate slope which falls in a north-south direction towards Lake Taupō. In both the western and eastern portions of the site, the most elevated area is near to its northern edge and the least elevated area being near to the southern edge. Given the sloping landform, the area comprises several shallow gullies running through the western side of the site from north to south which include hollows, depressions and low rises.
- 10 An unnamed ephemeral tributary of Lake Taupō runs through the site from the north to the lake. This waterbody is classified as a surface water body on Waikato Regional Council's (WRC) maps.

PREVIOUS INVOLVEMENT IN THE NUKUHAU AREA

- 11 An overview of my experience in Taupō District is set out in Appendix 1 of this evidence. I have regularly visited the general Nukuhau area over at least the last 35 years and have recently undertaken other ecological assessments relatively close to the subject land.

I have also visited the subject land and accessed views of it from publicly – available viewing points such as Wairakei Road, Poihipi Road, Watene Lane, Herepeka Street, and Docherty Drive. I have also viewed the subject land using Google Earth Pro.

SCOPE OF EVIDENCE

12 My evidence provides the following:

- A review of the ecological assessment¹ provided within the application.
- Comments on ecological features and values in the area within the proposed plan change.

STATUTORY CONTEXT

National Policy Statements

13 The Proposed NPS on Indigenous Biodiversity currently has no statutory weight but does nevertheless provide useful national-level context (and could potentially become operative prior to a resource consent stage for this project). The Proposed NPS, if retained in its current form, will provide strongly directive policy to avoid any net loss of indigenous biodiversity. It will also provide a standard set of criteria to be used for the assessment of ecological significance across Aotearoa/New Zealand.

Waikato PRPS And Regional Plan

14 The site is within the Waikato Region and is subject to provisions in the Waikato Regional Policy Statement (WRPS) and the Waikato Regional Plan (WRP). Relevant WRPS policies are set out in Appendix 2. Policy 11.1.1 sets out a requirement to maintain or enhance indigenous biodiversity when undertaking activities such as subdivisions. Policy 11.1.2 identifies the types of adverse effects that can occur, e.g. fragmentation, loss of corridors and connections, loss of ecological sequences, effects on water quality, changes resulting from the effects of pest plants and animals, and so on.

15 The WRPS criteria set to be used for the assessment of ecological significance is set out in Appendix 3.

¹ TurnerJ 2019 Nukuhau Private Plan Change Ecological Assessment. WSP Opus. 8 pp.

- 16 The Waikato Regional Plan contains stringent provisions relating to the protection of Lake Taupō and its catchment.

Taupō District Plan

- 17 District Plan provisions relating to indigenous biodiversity are set out in Appendix 4, of my evidence.
- 18 The subject site does not contain any Significant Natural Areas (SNAs) recognised in the District Plan. It is general rural land located immediately adjacent to the residential margins of Taupō township, so it is a reasonable expectation that urban expansion could occur subject to proper assessment and implementation of measures to address any potential adverse effects particular to this site.

ECOLOGICAL FEATURES AND VALUES

- 19 The application includes an ecological assessment (Turner 2019) and excerpts from the ecological assessment of the site by Turner (2019) are presented in Appendix 5 of my evidence.
- 20 It is clear that the subject land is a highly modified largely pastoral environment, and has been in that state for many years.
- 21 The “summary of values” provided by Turner (2019) is as follows:

“Based on currently available information the site has low ecological value and no areas within the site qualify as significant indigenous vegetation. If long-tailed bats are confirmed to be present in the future then this may qualify parts of the site as being significant habitat of indigenous fauna, notably the stands of mature trees.”

- 22 While this is a reasonable overview, I can provide the following comments:
- It would have been useful had Turner (2019) provided a map of the vegetation and habitats in the subject area, including the locations of larger trees which could potentially provide roosting habitat for long-tailed bats.
 - Although referred to in the site description (see Appendix 5 of my evidence), pipits and lizards are not referred to in the summary of values
 - Karearea/falcon (*Falco novaeseelandiae*; At Risk-Recovering) are known to be present close to the site, and will range across all of it, but are not mentioned.

ECOLOGICAL EFFECTS

23 The following assessments of effects are quoted directly from Turner (2019):

“3.1 Summary of Potential Effects

As the site has been highly modified it supports almost no indigenous vegetation and therefore there will be no significant adverse effects on the intrinsic value of the vegetation. There will also be no direct adverse effects on watercourses. Potential adverse effects will be limited to effects on fauna and indirect effects on watercourses downstream of the plan change area. There are four potential adverse ecological effects that will need to be addressed as part of any future resource consent application, being:

- Effects on long-tailed bats;
- Effects on NZ pipits;
- Effects on lizards; and
- Effects on watercourses downstream of the plan change area.

3.2 *Effects on long-tailed bats*

The existence of mature trees within parts of the site raises the potential for long-tailed bats being present. Therefore, any application for the subdivision of land or a land use consent, should include an acoustic survey for bats. If the acoustic survey confirms bats are regularly using the site, then an assessment of adverse effects will need to be undertaken. Adverse effects could include loss of roosting habitat and disruption of flightpaths. Measures will need to be developed to avoid, remedy, mitigate and/or offset any significant adverse effects. Such measures may include retention of high value stands of mature trees, provision of alternative artificial roost sites and provision of offset mitigation, e.g. pest control within known high value bat habitat.

3.3 *Effects of (sic) NZ pipit*

Given that habitat exists within the plan change area that could support NZ pipit it is recommended that any application for subdivision of land or a land use consent, should include a full site survey (breeding season August to February) to confirm the status of NZ pipit. If pipits are found to be breeding within the site then measures to

avoid, remedy or mitigate the effects will need to be implemented. Typical measures include keeping grass mown short within known breeding locations to prevent birds from starting nesting, thereby avoiding nest destruction during site clearance.

3.4 Effects on lizards

The existence of lizard habitat within the site means that there is the potential for lizards to occur within the plan change area. While it is considered unlikely that At Risk or Threatened species are present in the area, all native lizards are protected under the Wildlife Act 1953. Therefore, it is recommended that any application for the subdivision of land or a land use consent includes a lizard survey. The results of the survey should be used to inform the preparation of a lizard management plan (LMP) that would ensure that the risk of lizards being killed or injured during site clearance is minimised.

3.5 Effects on watercourses downstream of the plan change area

Given that the site only has overland flow paths that are dry most of the time and have no aquatic ecology values, development of the site will not result in direct effects on any watercourses. However, erosion and control measures will need to be implemented as part of any future development on the land to ensure that suspended sediments do not contaminate watercourses downstream of the plan change area during rain events. “

COMMENTS ON THE ECOLOGICAL ASSESSMENT BY TURNER (2019)

- 24 Perhaps the most notable statement in Turner (2019) is that “ecological effects cannot be accurately assessed “at this stage and that “should ecological surveys be needed” they would occur at the time of subdivision and would be a condition of any consent that the Council would grant.
- 25 Further surveys could be undertaken now, say for bats, pipits, and lizards, but, given that any on-the-ground subdivision may be some years away, such surveys would need to be done again immediately prior to subdivision. Given this, it would be appropriate to address these matters at the time of a subdivision application.
- 26 As this application is for a plan change, to change the zoning from rural to residential, actual development will not occur for some time. Furthermore, it is not currently known exactly how any future subdivision would occur and hence the ecological effects cannot be accurately assessed. As identified at the outset, the overall broad

level ecological values are not considered to be significant, nor is the site identified in the District Plan as warranting explicit protection as an SNA. However, as identified by Turner (2019), there may be localised or mobile ecological values present on the site. Given the anticipated lead in times, those locations or indeed values may change, possibly markedly, between when a decision is made on the Plan Change (and accompanying ecological assessments) and actual impacts on specific localised values as development occurs.

- 27 Accordingly, to enable the actual construction of houses on the site in the future, a subdivision consent (and maybe a land use consent) will be required. Either prior to development as a requirement of a staged Outline Plan Process, or otherwise as a requirement of the specific subdivision process, the person subdividing the land should undertake an assessment of effects of those specific matters of ecology identified above (i.e. effects on long-tailed bats, pipits, and lizards). This assessment would need to be undertaken by an ecologist and would focus on the land being subdivided. **Should ecological surveys be needed they would occur at this time and become a condition of any consent council would grant.**
- 28 Such requirements would, however, need to be specified at the stage when the Plan Change is granted, if that occurs. Matters that would need to be addressed at the stage when a subdivision consent is applied for are set out below.
- 29 Requirements relating to bats:
- Undertake a comprehensive acoustic survey to determine the presence, or otherwise, of long-tailed bats.
 - If bats are present, provide a Bat Management Plan which identifies actual or likely roost trees and flight paths, and provides tree management protocols, and other measures to ensure that there are no adverse effects on bats.
- 30 Requirements relating to lizards:
- A comprehensive lizard survey should be undertaken.
 - If indigenous lizards are found, a Lizard Management Plan should be provided, setting out measures to avoid, mitigate, or offset potential adverse effects on them.

31 Requirements relating to birds:

- Undertake a survey for pipits, including during the breeding season, August to February.
- If pipits are found, identify how potential adverse effects will be avoided.

32 Effects on watercourses downstream of the plan change area.

- My understanding is that the gully system(s) on the subject property is to be addressed with a comprehensive landscaping and indigenous planting plan. Such landscape planting may lead to a modest but not immaterial ecological gain. This is also likely to provide adequate management of water flows and sediment, although it could possibly be useful to consider the formation of low earth bunds in the gully system, to impede and retain water flows (and sediment and nutrients) in high intensity rainfall events.
- It is anticipated that erosion and sediment control measures would be implemented through best practice construction management practices required at time of subdivision and earthworks for any subsequent development authorised by the Plan Change.

COMMENTS ON SUBMISSIONS

33 Directly or indirectly, at least three submissions have addressed ecological matters, as set out below.

34 Submitter 34 – Peter Marshall, Tukairangi Trust

This submitter has raised the following concerns:

- Large planted soil conservation areas should be set aside using existing gullies and overland water flow patterns to cope with increased run off from hard surfaces and stormwater.
- For amenity and visual purposes, the mature trees and vegetation on the old Landcorp Wairakei Block Manager's house property needs to be retained.

Response

These are valid concerns, as discussed below.

35 Submitter 43 – Waikato Regional Council

This submitter has raised the following concern:

- The need for “a conservative approach to stormwater design is required in the structure plan area due to highly erodible pumice soils and the history of flooding in the vicinity.

Response

This is a valid concern, as discussed below.

This submitter also supports the recommendations in Turner (2019) to mitigate potential issues associated with the following:

- Effects on long-tailed bats (presence of roost trees and flight paths).
- Effects on NZ pipits (existence of habitat which could support NZ pipit).
- Effects on lizards (existence of lizard habitat).
- Effects on watercourses downstream of the plan change area (in relation to sediment discharges).

These are reasonable concerns, as addressed elsewhere in my evidence.

36 Submitter 53 – Lakes and Waterways Action Group (LWAG)

This submitter opposes the realignment of existing gullies.

Response

This matter is discussed further below.

DISCUSSION AND CONCLUSION

37 The site is clearly highly modified but does nonetheless have actual or potential habitat values for birds, lizards, and long-tailed bats. Gullies also have values as they channel storm water flows into the downstream receiving environment, including Lake Taupō.

38 The application states that ecological issues should be addressed at the resource consent stage for actual subdivision of the site, rather than at the plan change stage

that is currently under consideration. The application also states, however, that ecological matters will be addressed by the landowner(s) applying for a resource consent(s). This means that ecological matters will, potentially, be addressed in a piecemeal manner by each of the three landowners as they apply for a consent(s). However, as discussed above given the lead in times to development and the mobile nature of some of the species in question, I consider that such an approach will be effective in this instance.

- 39 This might mean that ecological effects have to be addressed, separately, for each consent application. Regardless of how the subdivision consent process occurs, the following matters need to be addressed at that stage:

Bats

- A comprehensive acoustic survey is required.
- If bats are found to be present, a Bat Management Plan should be provided which addresses bat roosts and identification of key flight paths and foraging areas.

Lizards

- Undertake a comprehensive lizard survey.
- If indigenous lizards are found to be present, provide a Lizard Management Plan which addresses how potential adverse effects will be avoided, mitigated, or offset.

Birds

- Undertake a survey for pipits, including during the breeding season, August to February.
- If pipits are found to be present, identify how any potential adverse effects will be avoided.

Gullies

- Note that these matters are also addressed in other evidence.

- How gullies are to be protected and enhanced to establish and maintain ecological linkages.
- How gully plantings will enhance bird habitat.
- How the above matters would be integrated into an overall development plan that includes public access and use for walking and cycling.

REFERENCES

- O'Donnell C.F., Borkin K.M., Christie J.E., Lloyd B., Parsons S., and Hitchmough R.A. 2018: Conservation status of New Zealand bats, 2017. *New Zealand Threat Classification Series 21*. Department of Conservation, Wellington. 8 pp.
- Robertson H.A., Baird K., Dowding J.E., Elliot G.P., Hitchmough R.A., Miskelly C.M., McArthur N., O'Donnell C.F.J., Sagar P.M., Scofield R.P., and Taylor G.A. 2017: Conservation status of New Zealand birds, 2016. *New Zealand Threat Classification Series 19*. Department of Conservation, Wellington. 23 pp.
- Turner J. 2019: Nukuhau Private Plan Change ecological assessment. *WSP Opus Report*. 8 pp. [See Appendix 5 for key excerpts.]

QUALIFICATIONS AND EXPERIENCE

I am Lead Principal Ecologist and a Director of Wildland Consultants Ltd, based in Rotorua. I have a Master of Science degree from the University of Canterbury, 1980, and a Bachelor of Science in Earth Sciences and Biology (double major) from the University of Waikato, 1977.

My professional memberships include the Royal Society of New Zealand (MRSNZ), the New Zealand Ecological Society, the New Zealand Institute of Forestry (MNZIF), the New Zealand Biosecurity Institute, the Ornithological Society of New Zealand, and the New Zealand Botanical Society.

I am the author of 24 conference papers, 25 scientific or technical publications, 39 published articles, and more than 500 ecological reports, species lists, and general ecological accounts.

I have been a practising ecologist since 1980, and have lectured in ecology and nature conservation at Lincoln College and the Waiariki Institute of Technology. I previously worked for a consulting firm in Christchurch, and have undertaken ecological survey work and related assessments in urban, rural, and remote back country situations over more than 40 years. From 1986-1990 I was employed as a Scientist by the Forest Research Institute, Rotorua, specialising in forest ecology, threatened plants, vegetation mapping, and the ranking and management of natural areas. From 1990 to 1996 I was a Conservancy Advisory Scientist (1990-1994) and then (1994-1996) Protection, Planning and Use Manager for the Department of Conservation. I also performed national-level roles with the Department.

Since 1996 I have been Principal Ecologist and a Director of Wildland Consultants Ltd. I have particular expertise in the evaluation of ecological significance, ecological management, especially ecological restoration, and the assessment of ecological effects of actual and proposed land uses.

Ecological evaluation is a discipline in which I have more than 35 years of experience having, in the 1980s, developed an ecological ranking system that was applied regionally and nationally by the Department of Conservation. I have also developed, for Environment Waikato, a technical guideline for application of natural heritage criteria in their Regional Policy Statement, been an advisor to the Ministry for the Environment on criteria for the evaluation of Section 6(c) of the Resource Management Act, developed ecological

evaluation criteria for the previous Bay of Plenty Regional Policy Statement (which became operative in January 2008), and developed (with Dr Kelvin Lloyd) ecological criteria for the Canterbury Regional Policy Statement.

My professional experience in Taupō District extends over c.35 years and includes the following:

1. Ecological assessments of proposed subdivisions.
2. Ecological input for structure plans.
3. Botanical surveys of reserves.
4. Ecological assessments of Significant Natural Areas on private land.
5. Provision of advice on the management of threatened ecosystems, habitats, and species, including management of pest plants and animals.
6. A major assessment of contorta pine, a serious pest plant across the Kaingaroa Plateau and adjacent inland ranges.
7. Surveys and provision of management advice on geothermal areas.
8. Ecological assessments of major infrastructure projects, such as the Taupō Eastern Arterial and the associated bridge over the Waikato River.
9. Wetland surveys along the Waikato River.
10. Avifauna surveys along the Waikato River.
11. Ecological assessments of proposed tourism/recreational developments, such as mountain biking and walking trails, ziplines, ski facilities, and other activities.
12. Botanical surveys of large tracts of indigenous forest.
13. Forest condition surveys.
14. Ecological assessments of large exotic plantation forest estates.
15. Preparation of ecological restoration plans for terrestrial and wetland sites.

WAIKATO REGIONAL POLICY STATEMENT POLICIES
ON INDIGENOUS BIODIVERSITY

11.1.1 Maintain or enhance indigenous diversity

Regional and district plans shall maintain or enhance indigenous biodiversity, including by:

- a. providing for positive indigenous biodiversity outcomes when managing activities including subdivision and land use change
- b. having regard to any local indigenous biodiversity strategies developed under Method 11.1.11; and
- c. creating buffers, linkages and corridors to protect and support indigenous biodiversity values, including esplanade reserves and esplanade strips to maintain and enhance indigenous biodiversity values.

11.1.2 Adverse effects on indigenous biodiversity

Regional and district plans shall recognise that adverse effects on indigenous biodiversity within terrestrial, freshwater and coastal environments are cumulative and may include

- a. fragmentation and isolation of indigenous ecosystems and habitats;
- b. reduction in the extent and quality of indigenous ecosystems and habitats;
- c. loss of corridors or connections linking indigenous ecosystems and habitat fragments or between ecosystems and habitats;
- d. the loss of ecological sequences;
- e. loss or disruption to migratory pathways in water, land or air;
- f. effects of changes to hydrological flows, water levels, and water quality on ecosystems;
- g. loss of buffering of indigenous ecosystems;
- h. loss of ecosystem services;
- i. loss, damage or disruption to ecological processes, functions and ecological integrity;
- j. changes resulting in an increased threat from animal and plant pests;

- k. effects which contribute to a cumulative loss or degradation of indigenous habitats and ecosystems;
- l. noise, visual and physical disturbance on indigenous species, particularly within the; and
- m. loss of habitat that supports or provides a key life-cycle function for indigenous species listed as 'Threatened' or 'At Risk' in the New Zealand Threat Classification System lists.

11.1.3 Avoidance, remediation, mitigation and offsetting (for indigenous biodiversity that is not significant)

Regional and district plan:

- a. for non-significant indigenous vegetation and non-significant habitats of indigenous fauna (excluding activities pursuant to 11.1.4;
 - i. shall require that where loss or degradation of indigenous biodiversity is authorised adverse effects are avoided, remedied or mitigated (whether by onsite or offsite methods).
 - ii. should promote biodiversity offsets as a means to achieve no net loss of indigenous biodiversity where significant residual adverse effects are unable to be avoided, remedied or mitigated.
 - iii. when considering remediation, mitigation or offsetting, methods may include the following:
 - replacing the indigenous biodiversity that has been lost or degraded;
 - replacing like-for-like habitats or ecosystems (including being of at least equivalent size or ecological value);
 - the legal and physical protection of existing habitat;
 - the re-creation of habitat; or
 - replacing habitats or ecosystems with indigenous biodiversity of greater ecological value
- b. for significant indigenous vegetation and significant habitats of indigenous fauna Method 11.2.2 applies.

**WAIKATO REGIONAL POLICY STATEMENT CRITERIA FOR
DETERMINING SIGNIFICANCE OF INDIGENOUS BIODIVERSITY**

11A Criteria for determining significance of indigenous biodiversity

The following criteria are to be used to identify areas of significant indigenous biodiversity and their characteristics as they exist at the time the criteria are being applied. Criteria may be specific to a habitat type including water, land or airspace or be more inclusive to address connectivity, or movement of species across habitat types.

To be identified as significant an area needs to meet one or more of the criteria identified in the table below.

Areas of significant indigenous biodiversity shall not include areas that have been created and subsequently maintained for or in connection with:

- artificial structures (unless they have been created specifically or primarily for the purpose of protecting or enhancing biodiversity); or
- beach nourishment and coastal planting (unless they have been created specifically or primarily for the purpose of protecting or enhancing biodiversity).

Table 11-1: Criteria for determining significance of indigenous biodiversity

Previously Assessed Site	
1	It is indigenous vegetation or habitat for indigenous fauna that is currently, or is recommended to be, set aside by statute or covenant or by the Nature Heritage Fund, or Ngā Whenua Rāhui committees, or the Queen Elizabeth the Second National Trust Board of Directors, specifically for the protection of biodiversity, and meets at least one of criteria 3-11.
Ecological Values	
2	In the Coastal Marine Area, it is indigenous vegetation or habitat for indigenous fauna that has reduced in extent or degraded due to historic or present anthropogenic activity to a level where the ecological sustainability of the ecosystem is threatened.
3	It is vegetation or habitat that is currently habitat for indigenous species or associations of indigenous species that are: <ul style="list-style-type: none"> • Classed as threatened or at risk, or • To the Waikato region; or • At the limit of their natural range.

4	It is indigenous vegetation, habitat or ecosystem type that is under-represented (20% or less of its known or likely original extent remaining) in an Ecological District, or Ecological Region, or nationally.
5	It is indigenous vegetation or habitat that is, and prior to human settlement was, nationally uncommon such as geothermal, chenier plain, or karst ecosystems, hydrothermal vents or cold seeps.
6	It is wetland habitat for indigenous plant communities and/or indigenous fauna communities (excluding exotic rush/pasture communities) that has not been created and subsequently maintained for or in connection with: <ul style="list-style-type: none"> • waste treatment; • wastewater renovation; • hydro electric power lakes (excluding Lake Taupō); • water storage for irrigation; or • water supply storage; unless in those instances they meet the criteria in Whaley <i>et al.</i> (1995).
7	It is an area of indigenous vegetation or naturally occurring habitat that is large relative to other examples in the Waikato region of similar habitat types, and which contains all or almost all indigenous species typical of that habitat type. Note this criterion is not intended to select the largest example only in the Waikato region of any habitat type.
8	It is aquatic habitat (excluding artificial water bodies, except for those created for the maintenance and enhancement of biodiversity or as mitigation as part of a consented activity) that is within a stream, river, lake, groundwater system, wetland, intertidal mudflat or estuary, or any other part of the coastal marine area and their margins, that is critical to the self sustainability of an indigenous species within a catchment of the Waikato region, or within the coastal marine area. In this context "critical" means essential for a specific component of the life cycle and includes breeding and spawning grounds, juvenile nursery areas, important feeding areas and migratory and dispersal pathways of an indigenous species. This includes areas that maintain connectivity between habitats.
9	It is an area of indigenous vegetation or habitat that is a healthy and representative example of its type because: <ul style="list-style-type: none"> • Its structure, composition, and ecological processes are largely intact; and • If protected from the adverse effects of plant and animal pests and of adjacent land and water use (e.g. discharges, erosion, sediment disturbance), can maintain its ecological sustainability over time.
10	It is an area of indigenous vegetation or habitat that forms part of an , that is either not common in the Waikato region or an ecological district, or is an exceptional, representative example of its type.
Role in Protecting Ecological Significant Area	
11	It is an area of indigenous vegetation or habitat for indigenous species (which habitat is either naturally occurring or has been established as a mitigation measure) that forms, either on its own or in combination with other similar areas, an ecological buffer, linkage or corridor and which is necessary to protect any site identified as significant under criteria 1-10 from external adverse effects.

EXCERPTS FROM THE OPERATIVE TAUPŌ DISTRICT PLAN

ISSUE 4 – THE NATURAL ENVIRONMENT

Within the Taupō District there are a number of outstanding natural areas, features and landscapes that are of significance. Often natural features are subject to a range of conflicting development pressures. Balance is required between the competing demands of protecting those areas, the community's desire to use and enjoy those areas, and the landowners' right to use those areas.

Of special importance within the District are waterbodies, being some of the District's greatest natural assets. Many values are associated with these waterbodies, including resource use, recreation, natural, cultural and historic values that all need to be appropriately incorporated in to their management. Of concern is the potential for activities on the surface of the water to have adverse effects on the amenity values of particular waterbodies, causing conflict and limiting the waterbodies' capacity to cope with use.

In particular, Lake Taupō, considered by many to be the central natural feature and taonga of the District, is a significant natural feature. Only a long term and integrated approach to resource management in the Lake Taupō catchment will be effective in dealing with the complex and often inter-related resource management issues facing this waterbody. Of importance is water quality, with nutrient inputs from sources such as run-off from pastoral agriculture activities, poorly managed on-site effluent treatment, and stormwater from roads and development, thereby deteriorating the existing quality of water.

The protection and enhancement of the District's natural environment is an important issue locally, nationally and internationally. The identification and protection of our natural areas is important with the District Plan providing a range of opportunities to achieve this.

The Plan includes the results of research undertaken by the Council in the identification of the District's valued landscapes and natural environment. Proposed development or activities will be required to demonstrate an understanding of the pressures and the threats and the community values associated with these natural areas in order to avoid, remedy or mitigate any adverse effects on the environment.

3b.5

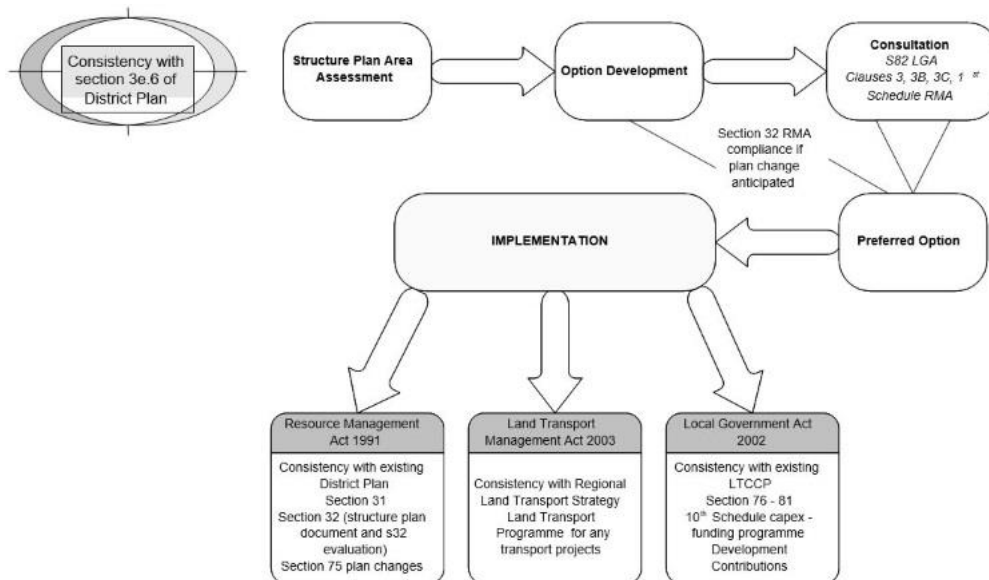
Anticipated Environmental Outcomes

- i. A range of activities compatible in scale, amenity and character with development within the Rural Environment.
- ii. New activities and development does not create adverse impacts in terms of overshadowing, excessive building scale, and vehicle movements.
- iii. Protection of the amenity of adjoining Environments from the adverse effects of activities within the Rural Environment such as noise.
- iv. Protection of the wider environment and community from nuisances such as excessive dust, noise, glare, odour and stormwater.
- v. The establishment, maintenance and enhancement of Papakainga housing in the District that enables tangata whenua to provide for their cultural, social and economic wellbeing.

- vi. No urban development in the Rural Environment except as provided through the TD2050 Structure Plan Process and associated plan change.

3e.7 Taupō District Structure Plan Process

Figure 1 Taupō District Structure Plan process



Matters to be considered in structure plan area assessment

The Taupō District Structure Plan shall contain consideration of the following:

Landscape and natural value management

- identification and management of areas with landscape value
- identification and management of significant natural areas

Natural resources

- catchment characteristics (upstream and downstream)
- vegetation coverage
- biodiversity

Heritage Sites

- sites, places, and values of importance to Tangata Whenua
- sites, places, and values of importance to the general Community including the likely presence of archaeological sites.

3i NATURAL VALUES

3i.i Introduction

Natural values are an important part of the Taupō Districts environment. The ecological significance of these areas means they are either relatively scarce habitats, are representative of natural areas within the District, or comprise habitats for rare, or endangered plants or animals. Such areas are valuable to the Community and provide a historical and ecological baseline record. To damage or destroy a natural area either in part or in whole, may mean the permanent loss of a significant element of our natural heritage. Therefore, these Significant Natural Areas require protection and, where possible, enhancement to ensure that these values remain.

Land use and development can result in the loss and degradation of ecosystems and habitats, and the fragmentation and isolation of habitats, resulting in a reduction in the abundance of certain species and a reduction in the natural values of an area.

The extent and degree of modification of indigenous vegetation and fauna habitats in the Taupō District reflects the pattern of human settlement and related activity. The vegetation of Taupō District was extensively modified by volcanic disturbance long before any human occupation, but the vegetation grew back, covering bare land prior to human settlement. Maori occupation resulted in the early clearing of much forest, particularly on flat rolling country. This was followed by further clearance by European settlers for conversion to farmland and exotic plantation forests. Most flat and rolling hill country has been cleared, and generally only small forest remnants remain, mostly secondary growth. Much of this clearance was initially done prior to the economic depression of the 1930s, and large areas have subsequently reverted to tussock land, shrub land and secondary forest. Clearance of indigenous vegetation has continued post 1930 as a result of further landuse changes. There is a direct relationship between topography and the degree of clearance of the indigenous vegetation. Geothermal fields are also a feature of the Taupō District, and have specialised vegetation types.

Large areas of the Significant Natural Area lie within Maori land. It is important to acknowledge the role that Iwi have played over time which has enabled the retention of these areas for the benefit of current generations. The existence of native vegetation on these lands also reflects the inherent complexities and restrictions that have been imposed on Maori land as a result of its tenure.

The Resource Management Act 1991 (The Act) requires that the Council provide for the protection of the natural heritage of the Taupō District. The Act identifies that the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna is a matter of national importance (Section 6(c)). Such an obligation needs to be balanced with the Council's wider obligations under the Act, as well as the defining characteristics of the District's environment. Section 7 of the Act also requests that the Council has regard to the intrinsic values of ecosystems (Section 7 (d)), and with Section S31(b)(iii) the maintenance of indigenous biological diversity, The Act recognises that the Plan needs to address areas of natural value outside of Significant Natural Areas. The plan further recognises the benefits to be gained from the enhancement of areas of value, and recognising where landowners have undertaken such work. Not only do such activities have a direct positive effect on the intrinsic values of such areas but will also have the additional effects of enhancing the amenity of an area in line with Section 7 (c) of the Act.

Currently the District has 251,836 ha of land which is identified as having these values. These are termed Significant Natural Areas. These Significant Natural Areas have been identified based on the significance criteria in [Appendix 5](#). All Significant Natural Areas are shown on the District Planning Maps, and are listed in [Schedule 7.8](#) of the Plan. It is important to note that where these areas are mapped, they are mapped as Overlays to the underlying Environment. The vast majority of these are in the Rural Environment, and the Rural Environment provisions along with any appropriate District Wide provisions are still a necessary consideration for all activities undertaken in these Areas. The Plan generally seeks to provide for the protection and where possible the enhancement of the ecological values associated with those Areas. However the Plan does not seek to prohibit use and development within the Significant Natural Areas. For example, limited areas of discrete, well sited and designed development may be capable of being undertaken in a manner that is appropriate in relation to the values of the Significant Natural Area in question.

Each of the Significant Natural Areas has differing ecological characteristics, and tenure. A large amount of these areas are currently legally protected under other enactments and landowner initiatives. It is the intent of this Section of the Plan that these landowner initiatives are recognised and promoted to provide for the voluntary protection and enhancement of Biodiversity in the District. A range of regulatory and non-regulatory methods have been identified to meet the Objectives, recognising that a combination of methods is likely to be more successful in achieving the protection of Significant Natural Areas, and therefore the purpose of the Act.

It is important also to note that Regional Councils also have responsibilities under the Act in relation to biodiversity. Whilst the rules in this Plan reflect this and look to exclude activities that would require consent under a Regional Plan for biodiversity reasons, consideration of these documents is recommended. This is especially pertinent for undertaking activities in areas of geothermal vegetation or wetlands. Regional Plans may also include rules that relate to vegetation clearance on steep erodible areas or near waterways.

The majority of the Department of Conservation scenic and recreation reserves within the Taupō District have been identified as Significant Natural Areas. This land is both within the Rural and Residential Environments and is protected from development under a Department of Conservation Conservation Management Strategy. Section 4(3) of The Act excludes activities undertaken under such strategies and other management plans undertaken under the Conservation Act 1987 as being excluded from land use rules in the District Plan.

3i.2 Objectives and Policies

OBJECTIVE

3i.2.1

The protection of Significant Natural Areas in the Taupō District from more than minor adverse effects of indigenous vegetation clearance.

POLICIES

- i. Avoid remedy or mitigate more than minor adverse effects of vegetation clearance on the ecological values of Significant Natural Areas.
- ii. Consideration of the scale, intensity, purpose, location and design of activities within Significant Natural Areas to avoid, remedy or mitigate adverse effects on their ecological values, considering the effects of the vegetation clearance on:
 - a. The composition of significant indigenous flora and fauna, and the naturalness, diversity and the life supporting capacity of Significant Natural Areas.

- b. Ecosystems located across a succession of natural habitats (such as geothermal areas, aquatic areas, riparian areas, foreshores, alpine areas and forest sequences etc), or in areas which experience occasional stress events (such as seasonal wetlands, slip faces, etc), and are more likely to be more diverse than anywhere else.
- c. Rare or threatened indigenous flora or fauna, or species unique to the District, including adverse effects on areas used by rare or threatened indigenous fauna on a regular basis.
- d. Protection of the long term ecological sustainability of a Significant Natural Area, including taking into account the level of disturbance within the area, pest impact, or threats, by existing or proposed protection measures with particular regard to covenants or other mechanisms which ensure the long term protection of natural values including significant indigenous vegetation or habitat.
- e. The extent to which the Significant Natural Area makes up part of an ecological corridor, and provides linkages to other indigenous habitats.

EXPLANATION

The Resource Management Act requires the Taupō District Council to provide for the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna. To meet this statutory obligation, there is a need to protect the ecological values of these areas. The resource consent process has been identified as the primary method by which these areas will be protected. The clearance of Indigenous Vegetation within Significant Natural Areas, that requires a resource consent, will be notified where it is determined necessary as per section 95A(2) of the Act (see also [section 1.8](#) of this Plan for more information about notification). The location of these areas with significant values has been identified and are shown on the Planning Maps and listed in [Schedule 7.8](#) as Significant Natural Areas. Vegetation clearance has been identified as the primary threat to the values of these areas, which is able to be managed through the District planning process under Section 31 of the Act. Whilst it is acknowledged that there remain other threats such as invasive plant and animal pests, such measures are best controlled by Regional Councils or through the other methods identified in [section 3i.3](#).

Vegetation clearance within Significant Natural Areas need to be assessed on a case by case basis to ensure that the effects on the Significant Natural Areas can be avoided, remedied or mitigated as appropriate. It is considered that vegetation clearance including erosion protection activities and the ongoing practical operational requirements of existing (and future enhancements to) hydro electric infrastructure may be undertaken in a manner that is appropriate in relation to the values of the Significant Natural Area in question.

The policies listed under [Objective 3i.2.1](#) list matters which will need to be taken into account by applicants for resource consent and decision-makers alike. These policies identify important considerations based on the potential effects that activities such as Indigenous Vegetation Clearance can have on a Significant Natural Area. The Council recognises that some landowners will desire or need to obtain an economic return from their land whilst protecting its natural qualities. Given the importance that the Act and the wider Community places on Significant Natural Areas, it is expected that an applicant for resource consent for vegetation clearance within a Significant Natural Area will demonstrate the manner in which potential effects on that Area will avoided, or mitigated, or remedied.

Each Significant Natural Area has characteristics which form the basis for its importance, whether it is the species present, the size of the Area, its location, its altitude, etc. As a result, the effects of Indigenous Vegetation Clearance activities will differ. The level of clearance proposed will also have differing effects based on its scale, its location and intensity. There will be situations where the effects of the clearance can be appropriately avoided, remedied or mitigated based on the characteristics of the activity and the

Significant Natural Area. An appropriate assessment of potential effects of the clearance on the Significant Natural Area will be required through the resource consent process based on these policies.

The protection of Significant Natural Areas would ideally involve avoiding development throughout the entire Significant Natural Area. However, some activities will be permitted in Significant Natural Areas and others may be found to be appropriate through a resource consent process where their effects are managed to protect the Area's important values. In that regard it may be preferable to develop small areas at a higher intensity as opposed to developing a larger part of a Significant Natural Area to a relatively low intensity.

OBJECTIVE

3i.2.2

Facilitate the long term protection of areas of natural value in the Taupō District.

POLICIES

- i. To provide a variety of mechanisms which encourage and facilitate, where possible, the formal protection of identified Significant Natural Areas in the Taupō District.
- ii. Enable and recognise activities that result in a Net Environmental Gain for areas of natural value in the District.
- iii. Recognise the historical and current role that maori have played in the long term management and protection of Significant Natural Areas in the Taupō District.

Bonus Lots

- iv. Enable the limited creation of Bonus Lots in the Rural Environment which will result in the voluntary formal protection in perpetuity of all or part of a nominated Significant Natural Area (being not less than 10ha per Bonus Lot created) whilst ensuring that:
 - a. Adverse effects of the Bonus Lots on rural amenity, Infrastructure or result in the urbanisation of the Rural Environment will be avoided remedied or mitigated; and
 - b. If the Bonus Lots are created adjacent to the Significant Natural Area to be protected, that the resulting land use on those Lots will not adversely impact the natural values of that Area.

EXPLANATION

The protection of Significant Natural Areas in the Taupō District will generally result in an enhancement of the values of these areas. Promotion of such activities is seen as a key component of meeting the Council's obligations under section 6(c) of the Resource Management Act 1991, which is to take appropriate steps to ensure protection of the specified values, being areas of significant indigenous flora and significant habitats of indigenous fauna. Reliance solely on the use of regulation will provide for the maintenance of these values, but will not result in the actual protection. It is important therefore that Council encourages and enables landowners and the wider community to protect these areas, by making provision for non-regulatory methods including voluntary approaches to protection.

The concept of Net Environmental Gain recognises that in some instances, a level of disturbance to Significant Natural Areas can be balanced by other measures that may result in an overall increase in the level of protection for such Areas. Fencing, pest control, planting, etc can all contribute to their protection and therefore help to enhance such Areas. However, such measures would have to be of a scale that is sufficient to result in some

measurable benefit to a Significant Natural Area, and will need to be assessed on a case by case basis. This concept can also be extended to development outside of SNAs that result in the appropriate enhancement of areas of natural value that would not otherwise occur.

Large areas of the Significant Natural Areas lie within Māori land. It is important to acknowledge the role that Iwi have played over time which has enabled the retention of these Areas for the benefit of current generations. The existence of native vegetation on these lands also reflects the inherent complexities and restrictions that have been imposed on Māori land as a result of its tenure.

Bonus Lots

Bonus Lots are able to be created as a result of the voluntary protection of all or part of an identified Significant Natural Area. The development right afforded through the Bonus Lot process recognises that the landowner is making a commitment to the long term protection of natural values within the Taupō District. The resulting Bonus Lots do not necessarily need to be on or adjacent to the same allotment as the Significant Natural Area to be protected and are able to be located elsewhere in the Rural Environment within the Taupō District. Bonus Lots may introduce urban landuses into the Rural Environment, but also result in a degree of Net Environmental Gain that has national implications due to the subsequent protection of areas of national importance. However the potential effects, in relation to rural amenity, rural infrastructure and growth management, associated with the creation of the bonus lots will need to be considered at the stage of consent, as there may be situations where the location and/or distribution of these lots may not be appropriate. Such landuses can have potential adverse effects when located next to Significant Natural Areas, such as the introduction of pests into these areas. Such potential effects will need to be assessed at the time of consent.

To avoid intensive development, a maximum of 10 Bonus Lots can be created based on a ratio of one Bonus Lot per 10 Hectares protected. Whilst recognising the benefits to the District arising from the protection of the Significant Natural Area, it is still important to consider the effects that the creation of these Lots may have on the Rural Environment, and to apply the wider Rural Environment provisions in [Section 3b](#) of the Plan.

OBJECTIVE

3i.2.3

The enhancement of areas of natural value in the Taupō District.

POLICIES

- i. To enable the enhancement of areas of natural value by:
 - a. Recognising landowners and trustees who have protected the areas of natural value on their lands,
 - b. Recognising the extent of Significant Natural Areas under Māori land tenure, and the need to provide for the relationship of Māori and their culture and traditions with their ancestral lands and tāonga,
 - c. Recognising all landowners as having kaitiakitanga (the ethic of stewardship) of the biodiversity on their lands, and identifying and implementing statutory and non statutory mechanisms to implement this.
 - d. Facilitating landowners to achieve the long term protection and enhancement of areas of natural value through the use of non regulatory methods.

- ii. Recognise and encourage development that enhances areas of natural value, particularly the establishment, re-establishment, extension or buffering of ecological linkages along waterways, and between existing areas of natural value.

EXPLANATION

The natural values of the Taupō District should be enhanced where possible. It is acknowledged that these areas of natural value may exist outside of Significant Natural Areas, and the enhancement of these areas is also an appropriate objective. It is the landowner who has often had the key role in the enhancement and ongoing protection of areas containing such values, as it is their actions which have ensured that these areas are present. A large majority of these areas are on multiple owned Māori land, and the contribution that present and past generations have made to the protection of these areas needs to be recognised. It is also recognised that Council has a role in encouraging and, where possible enabling the enhancement of areas of natural value. The use of non-regulatory methods and working in a collaborative fashion with landowners will assist in the enhancement of the Districts natural values.

Development can also provide for the enhancement of these values, and such outcomes should be recognised and encouraged where opportunities exist, whether this is through protection mechanisms on adjacent areas, or creation of new areas through planting, they will have a positive effect on the natural values of the District.

3i.3

Methods

Protection Mechanisms

- i. Identification of Significant Natural Areas as a schedule to the Plan and on the District Planning Maps.
- ii. Provide for the protection of Significant Natural Areas by regulating vegetation clearance through rules in the Plan.

Co-operation with other Agencies

- iii. Advocate and comment on relevant rules and policies within any relevant Department of Conservation's Conservation Management Strategy, Regional Plan, or Regional or National Policy Statement.
- iv. Collaboration with groups that operate in the Taupō District, which have biodiversity goals.

Education and Assistance

- v. Production of the Taupō District Natural Heritage Strategy to give effect to and provide more information on the implementation of the methods in this section.
- vi. Facilitation of the distribution of education and information on the importance of natural values, and the mechanisms available for the protection and enhancement of these values.
- vii. Liaison and consultation with landowners whose properties contain areas of natural value, and with the wider Community, to determine other management options for these areas.

Incentives

- viii. Provision of incentives for landowners to encourage voluntary protection such as potential assistance with fencing and pest control, and/or assistance with applications for protection covenants.
- ix. Assistance to landowners to apply to national and regional government and other sources for funding for the protection and enhancement of natural values in the Taupō District.
- x. Allocation of resources through the LTCCP and Annual Plan processes such as funds to assist the voluntary protection of areas.
- xi. Encourage the creation of Bonus Lots through the subdivision consent process to promote and incentivise the active protection of Significant Natural Areas. Council will keep a register of those Bonus Lots created and the areas of Significant Natural Area being protected.
- xii. The implementation of any Joint Management Agreement between Council and Iwi.
- xiii. Five years after the rules in section 4e.6 of the Plan become operative, review their effectiveness relative to the effectiveness of the other non regulatory methods in section 3i.3 of the Plan.
- xiv. Monitor the effectiveness of the provisions of the Plan as they relate to the protection of the values of Significant Natural Areas.

EXPLANATION

Identification of these Significant Natural Areas, allows the Council to target regulation and/or resources to protect and enhance these Areas. The mapped Significant Natural Areas are overlays, and the areas will still be subject to the provisions of the underlying zoning.

Rules can be used to implement the overlay approach, to provide certainty that defined environmental standards will be able to be achieved, and to provide certainty for the applicant and for the administration of the Plan. Rule 4e.6 is the regulatory method which promotes certainty. The use of rules does not mean that any activity which requires consent is not appropriate to proceed, instead the consent process is a trigger for an assessment to occur of the effects of that activity on the values of the Significant Natural Area concerned. The rules contained in Section 4e.6 of the Plan identify situations where it is permissible to clear indigenous vegetation within a Significant Natural Area. This is in identified situations where there is already considered to be in existence a management regime for the area which provides for the enhancement of the values of the area, or where the effects of the clearance will be less than minor.

Advocacy involves working with landowners in relation to unsustainable land use in Significant Natural Areas, what the best methods are to resolve the issue, and how those methods can be implemented. Emphasis is on direct contact with landowners, but Council also has an advocacy role in ensuring that Council's policies are considered by other resource user groups in the Community when they are planning or undertaking their activities. Advocacy with Regional and Central Government may also be necessary, where those agencies may be able to facilitate the protection and enhancement of Significant Natural Areas in the Taupō District. Council will support Regional policies and rules which aim to achieve the protection of natural values in the District.

Many landowners may be unaware of the values of the Significant Natural Areas on their properties and so modify, or destroy these Areas. Therefore, it is important that landowners and the wider Community are informed about such features within the District. This education can cover matters including methods of protection and enhancement, funding available, types of species in these Areas, and traditional uses of species by Māori.

A Taupō District Natural Heritage Strategy will be developed by the Council, for the Taupō District, to provide more information as to how the Council will implement the non-regulatory methods described in [Section 3i.3](#) of this Plan. This strategy will act as supplementary planning guidance to the District Plan. The strategy will be developed under the Local Government Act special consultative process to provide more guidance to landowners and the community to assist in their understanding of the natural values in the District as well as mechanisms available to provide for their protection and enhancement.

The methods and rules relating to natural values will be monitored so to ensure their effectiveness in achieving the objectives of the Plan. These methods will be reviewed five years after the rules become operative, so to ensure that the use of rules is an effective way in meeting the objectives.

3i.4

Anticipated Environmental Outcomes

- i. Protection of the ecological values of Significant Natural Areas from more than minor adverse effects of activities and development.
- ii. The enhancement of the ecological values of Significant Natural Areas.
- iii. An increase in those Significant Natural Areas with formal protection.
- iv. Greater public awareness of the importance of natural values.
- v. The long-term protection and enhancement of natural values, minimising the more than minor loss or degradation of the natural environment.

4e.6

Natural Values

4e.6.1

Indigenous Vegetation Clearance within a Significant Natural Area is a **permitted activity** where the following criteria are met:

- i. The vegetation cleared is:
 - a. no more than 3 metres in height; and
 - b. no more than 700m² in area per allotment, or 1% of the total area of the identified Significant Natural Area on that allotment, whichever is the lesser, provided that this is the maximum total area cleared within the Significant Natural Area after December 19 2008; and
 - c. mapped and provided to Council prior to clearance, and
 - d. more than 20 metres from any waterbody, and
 - e. not Monoao or Frost Flat vegetation, and
 - f. for any of the following purposes:
 - i. a building or structure and its curtilage;
 - ii. pedestrian and/or cycling use;
 - iii. removal of trees that endanger human life, structures or utilities or obstruct existing access to utilities;
 - iv. conservation fencing to exclude stock and/or pests;
 - v. gathering of plants in accordance with Maori custom and values;
 - vi. maintenance of productive pasture and exotic plantation forests;
 - vii. access for any of the above purposes and for pest management; or
- ii. The vegetation is in an area which is:

- a. Public Conservation land managed under the Conservation Act 1987 or the National Parks Act 1980, or
 - b. Subject to management by entities that have certification under:
 - i. Forest Stewardship Council Certification; or
 - ii. Programme for the Endorsement of Forest Certification; or
 - iii. Sustainable Forestry Initiative; or
 - c. A Queen Elizabeth II Covenant; or
 - d. Nga Whenua Rahui Kawenata; or
 - e. Any Maori Reservation established under Te Ture Whenua Maori Act 1993/Maori Land Act 1993 for the purposes of scenic interest and/or wildlife protection and/or burial ground, or
 - f. Subject to a Heritage Protection Order, or
- iii. The Indigenous Vegetation Clearance is:
- a. the indigenous understorey to plantation forest, and is incidental to plantation forest clearance; or
 - b. an integral part of the maintenance of lawfully established roads, tracks, earth dams or fence lines (as long as the clearance is within 1 metre of the fence line); or
 - c. necessary to protect and maintain hydro electric generation structures or to prevent or remedy erosion that may adversely affect the operation of a hydro electric power scheme and where:
 - i. the vegetation clearance is within SNA 035 only;
 - ii. the vegetation clearance is within 5 metres of a water body;
 - iii. the vegetation clearance is no more than 1,000m² in area per allotment or 1% of the total area of the identified SNA on the allotment whichever is the lesser, provided that this is the maximum total area cleared within the Significant Natural Area after December 19 2008; and
 - iv. a report is provided to Council one month prior to clearance that:
 - a. includes a map of the area subject to clearance and identifies the total area involved; and
 - b. identifies the general nature of the vegetation to be cleared and the method to be utilised for the clearance; and
 - c. details why the clearance is necessary for the protection and maintenance of hydro electric generation structures or to prevent or remedy erosion.

NOTE: Regional Plans should also be consulted to ensure that there are no additional Regional Resource Consents required for Indigenous Vegetation clearance.

4e.6.2

Indigenous Vegetation Clearance within a Significant Natural Area that is not a permitted activity is a **restricted discretionary activity**.

- i. EXCEPTION: Where consent has been granted under a Regional rule which has required an assessment of the effects on the ecological value of the area, or is permitted by a Regional rule to which the focus is in respect to ecological values.

ASSESSMENT CRITERIA:

The matters over which the Council reserves discretion for the purposes of assessment are:

- a. The need for, or purpose of, any indigenous vegetation clearance.

- b. Having regard to measures proposed for avoidance mitigation or protection, the effects, including the cumulative effects of the proposed vegetation clearance on:
 - i. the values associated with natural character, biodiversity, significant habitat of indigenous flora and fauna and the ecological values of the Significant Natural Area.
 - ii. any indigenous vegetation that is to be retained including having regard to the rate of the recovery of that vegetation.
 - iii. the composition of significant indigenous flora and fauna and the naturalness, diversity, and the life supporting capacity and long term ecological sustainability of the Significant Natural Area.
 - iv. areas which experience occasional stress events (such as seasonal wetlands, slip faces).
 - v. ecosystems located across a succession of natural habitats (such as geothermal areas, aquatic areas, waterways, wetlands, riparian areas, foreshores, alpine areas and forest sequences).
 - vi. rare or threatened indigenous flora or fauna, or species unique to the District, including any adverse effects on areas used by rare or threatened indigenous fauna on a regular or seasonal basis.
 - vii. changes resulting in an increased threat from animal and plant pests.
 - viii. the extent to which the Significant Natural Area makes up part of an ecological corridor, and provides linkages to other habitats.
 - ix. ecological effects arising from the changed size and shape of the vegetated areas of the Significant Natural Area before and after clearance, including effects of fragmenting vegetated areas, and edge effects.
- c. Any Net Environmental Gain, or environmental compensation, that results from the clearance or other activities associated or as a consequence to that clearance.
- d. The effect that the clearance will have on the attributes of any identified Landscape Area.
- e. Any further matters arising from the results of a report by a suitably qualified and experienced ecologist as to the effects which the clearance will have on the ecological values of the Significant Natural Area.
- f. Consideration of the scale, intensity, location and design of the area to be cleared so as to avoid, remedy, or mitigate adverse effects on the ecological values of the Significant Natural Area.
- g. Methods to protect the long term ecological sustainability of the Significant Natural Area, including the clearance, methodology, the scale, intensity, location and design of the area to be cleared and the scale and density of any revegetation proposed, maintenance of retained and revegetated areas, legal protection measures such as covenants or other mechanisms so as to avoid, remedy or mitigate adverse effects on the ecological values of the Significant Natural Area.

EXCERPTS FROM TURNER (2019)

“2.1 Significant Natural Areas

A review of the Taupō District Planning Maps found no Significant Natural Areas (SNA's) within the proposed plan change area or within areas immediately adjacent. The closest SNA is c.1100m to the north-east.

2.2 Vegetation and flora

The vegetation types within the plan change area are examples of highly modified ecosystems that are the result of historic clearance of the original forest and conversion to pasture and forestry. The forestry blocks have subsequently been cleared. Most of the remaining tree and shrub cover is associated with either shelterbelts or the result of amenity planting near residential dwellings (Photo 1). The vegetation is dominated by introduced plant species, including weed species, and there is virtually no indigenous vegetation.

Most of the land within the plan change area is occupied by grazed or rough pasture of low ecological value (Photo 2). Google Earth images from 2008 indicate that the parcel of land to the immediate north of the Rajasingham Family Trust property was likely rough pasture that has subsequently been invaded by shrubby weed species, including broom (*Cytisus scoparius*) and blackberry (*Rubus fruticosus agg.*) (Photo 3). The parcel of land immediately to the north of this is characterised by mown grassland and amenity tree and shrub plantings associated with several residential dwelling and commercial buildings.

The groupings of mature trees around properties and lining field boundaries are exotic conifer and deciduous species including: *Acacia spp.*, *Pinus sp.*, *Quercus spp.*, *Populus spp.*, *Salix sp.* and *Betula sp.* Overall the vegetation within the proposed plan change area has very low intrinsic ecological value.

2.3 Fauna

2.3.1 Birds

Common introduced and native bird species were recorded during the site visit including welcome swallow (*Hirundo neoxena neoxena*), blackbird (*Turdus merula*), skylark (*Alauda arvensis*), house sparrow (*Passer domesticus*), goldfinch (*Carduelis carduelis*) and magpie (*Gymnorhina tibicen*). No bird species classified as *At Risk* or *Threatened* were recorded. With the possible exception of New Zealand pipit (*Anthus novaeseelandiae novaeseelandiae*), species classified as *At Risk*, it not expected that any *At Risk* or

Threatened species regularly occur within the site based on the habitat types present. Some of the habitat within the site is potentially suitable for pipit i.e. rough grassland. No pipits were observed or heard during the site walkover, however the survey did not cover the entire site. There is therefore the potential for pipit to be present, although if the species does occur, numbers are expected to be low.

2.3.2 Lizards

Habitat exists for lizards within the plan change area i.e. wood piles, scrubby vegetation and rough pasture. The highly modified nature of the site means that the presence of *At Risk* or *Threatened* species is unlikely.

2.3.3 Bats

Two species of bats occur within New Zealand. The lesser short-tailed bat (*Mystacina tuberculata*) and long-tailed bats (*Chalinolobus tuberculatus*). The habitat within the plan change area is unsuitable for short-tailed bats as the species is usually associated with large tracts of mature native forest. The closest record for this species in the national bat database (DOC, June 2019) was approximately 40km to the east in the Kaimanawa Forest Park, recorded in 2018. The long-tailed bat, a species with a threat status of Nationally Critical, is more adapted to edge habitat than the lesser short-tailed bat and this species occurs widely throughout the Waikato Region. It roosts in cavities in both native and exotic trees and can be found in landscapes where the dominant mature trees are exotic. Within the plan change area there are several stands of mature trees associated with dwellings that have the potential to provide roosting habitat for long-tailed bats. There are also rows of mature trees along field margins that could function as flight paths, as well as provide roost sites. Individual mature trees within paddocks could also provide roost habitat, although isolated trees tend to be less favourable roosting sites compared to trees located within groups. The national bat database (DOC, June 2019) holds no records of long-tailed bat within the plan change area. The nearest survey record to the plan change area is within the Wairakei Golf Course and Sanctuary, approximately 3km to the north. The survey was undertaken in 2014 and recorded no bats. There are records for bats in the Kinleith Forest (2009), approximately 20km to the north-west. There have also been relatively recent newspaper reports of bat being recorded near Wairakei Village (NZ Herald, November 2018). Although no long-tailed bats have been recorded within the plan change area, the presence of potential roost trees and flight paths, together with records of long-tailed bats within the wider landscape, means that there is a moderate risk of this species being present within the plan change area on a regular basis.

2.4 Aquatic Habitats

While there are overland flow paths through the site, there are no permanent streams. At the time of the site visit there was no surface water. Overland flow paths were dry with pasture grasses and weeds through their base (Photo 4). There are no habitats within the site supporting aquatic habitat values.

2.5 Summary of values

Based on currently available information the site has low ecological value and no areas within the site qualify as significant indigenous vegetation. If long-tailed bats are confirmed to be present in the future then this may qualify parts of the site as being significant habitat of indigenous fauna, notably the stands of mature trees.”